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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.          | CONFIRMATION NO.       |
|---|-------------|----------------------|------------------------------|------------------------|
| 10/511,714  | 10/15/2004  | Bong Kil Han         | 101371-36                    | 6349                   |
| 27387 7590 07/22/2008<br>NORRIS, MCLAUGHLIN & MARCUS, P.A.<br>875 THIRD AVE<br>18TH FLOOR<br>NEW YORK, NY 10022 |             |                      | EXAMINER<br>HERRING, BRENT W |                        |
|   |             |                      | ART UNIT<br>3633             | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>07/22/2008      | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/511,714

**Applicant(s)**

HAN, BONG KIL

**Examiner**

BRENT W. HERRING

**Art Unit**

3633

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/CIS)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheu et al., U.S. Patent 6,266,938 in view of Petter, U.S. Patent 2,345,500.

Regarding claim 1:

Sheu et al. discloses a method capable of being used for *constructing a high rise building having a core and a residence space around the core*, the method comprising the steps of: (b) connecting a girder (1, see Figs. 2-4) to a steel-frame pillar (see Fig. 2), the girder includes an anchor-connecting member (collaboration of parts 10, 120, 121, see Fig. 6 form an anchor-connecting member) to which a steel-frame beam (4, 20, both constitute steel-frame beams) is connected, a portion of the anchor-connecting member (10, 120, 121) being buried in a core wall (see Fig. 6, col. 4, lines 10-14); (c) assembling the steel-frame beam (20) on the anchor-connecting member (10, 120, 121, see Figs. 3, 4, 6 8); (d) arranging reinforcing bars (51, see Fig. 2) in a deck plate (7, see Figs. 2 and 6) or a slab type mold installed on the steel-frame beam (20, see Fig. 6), and in the core wall (see Fig. 6); and (e) applying a slab concrete and a core concrete simultaneously or in this order (see Fig. 6).

Sheu et al. does not expressly disclose the step of (a) installing the steel-frame pillar on a shaft portion of the core.

Petter discloses installing a pillar (13, see Fig. 3) on the shaft portion of a concrete footing/ foundation core (15).

Petter and Sheu et al. are analogous art because they are from the same field of erecting static load-bearing structures.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to install the steel-frame pillars of Sheu et al. on the shaft portion of the core of Petter.

The motivation to combine would have been to provide a base support to the structure of Sheu (column 1, lines 5-8 of Petter).

Regarding claim 2:

Sheu in view of Petter teaches the method of claim 1, and Sheu further discloses wherein plural sub-connecting members (3, see Figs. 2, 3, 6 and 7) capable of use *for supporting the deck plate or the slab type mold* are installed on the girder (1, see Fig. 3) installed between the steel-frame pillars (four vertically positioned "I" beams, see Fig. 2), the sub-connecting members (3) including a connecting member (121, see Fig. 6 and 8) coupled to the girder (1) and a supporting member (3 having hole 30, see Fig. 7) coupled to one end of the connecting member (121, see Fig. 6).

Regarding claim 3:

Sheu in view of Petter teaches the method of claim 1 wherein the anchor-connecting member (10, 120, 121) comprises a connecting member (10 in contact with 1, see Figs. 3, 6) connected to the girder by welding or bolts (1, column 2, lines 30-33), an anchor plate (121) connected to the connecting member (10) by welding or bolts (see Figs. 3, 6, 8), a gusset plate (120) attached to the anchor plate (121), and a stud or shear connector (6) extended from the anchor plate (121) to the concrete wall and buried in the concrete (see Fig. 6).

Sheu does not teach wherein the gusset plate is attached to the anchor plate by welding.

Examiner takes official notice that it is old and well known to use welding for attachment of metal parts. The substitution of welds for bolts is nothing more than the substitution of one fastening means for another equivalent known fastening means that would fail to yield any unpredictable results to one of ordinary skill in the art at the time of the invention. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have replaced bolts in the prior art of Sheu with welding to connect the gusset plate and anchor plate.

Regarding claim 4:

Sheu teaches the method of claim 1 wherein the step (c) further comprises the steps of forming a slot hole (100) on the anchor-connecting member (10, 120, 121, see Figs. 3, 6, 8) and coupling a high tensioned bolt (N) in the slot hole (100) to be assembled on the steel-frame beam (20).

***Response to Arguments***

3. Applicant's arguments, see REMARKS/ARGUMENTS, filed May 12, 2008, with respect to the rejection(s) of claim(s) 1-4 under USC 103(a) have been fully considered, but are moot in view of the new grounds of rejection.

Regarding applicant's arguments to the rejection of claim 1:

Sheu inherently describes a construction method with the disclosure to the steel beam structure.

4. In response to applicant's arguments, the recitation "for constructing a high rise building having a core and a residence space around the core" has been given minimal patentable weight because the recitation occurs in the preamble and is to the intended use of the method steps. A preamble is generally accorded minimal patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone.

5. In response to applicant's argument that Petter is nonanalogous art that teaches away from the instant invention of applicant, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. In this case, the footing/foundation shaft portion of the core of Petter having a pillar installed thereto is the teaching of relevance, not the material selection of the columns of Petter.

6. Examiner does not identify numeral 4 of Sheu et al. as a column.
7. The slab as taught by Sheu is to a core wall as applicable for the intended use of the method "for constructing a high rise building having a core and a residence space around the core." A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.
8. Examiner does not contend that numeral 1 of Sheu et al. is anything other than a girder, as evidenced by examiner's rejection of claim 1 above.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRENT W. HERRING whose telephone number is (571)270-3661. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian E. Glessner can be reached on (571)272-6847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3600

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BWH/

Bwh

/Robert J Canfield/  
Supervisory Patent Examiner, Art Unit 3635